

# Evaluating Roots of Happiness at the South East Asian Mutual Assistance Association Coalition (SEAMAAC)

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## **ABSTRACT**

Evaluating Roots of Happiness at the South East Asian Mutual Assistance Association Coalition (SEAMAAC)

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This project sought to evaluate the impact, if any, the South East Asian Mutual Assistance Association Coalition (SEAMAAC) had on depression and socializing behaviors in the elderly Vietnamese and Laotian community in Philadelphia that SEAMAAC serves. The Geriatric Depression Scale (GDS) and Lubben Social Network Scale (LSNS), two highly validated scales, were used to screen for depression and score the socializing behavior of the elders.

Results of the study found that the Vietnamese exhibited much more social connectedness than the Laotian population. Vietnamese also had generally low risk of depression, but risk increased with age. The more time the Vietnamese spent with SEAMAAC and received its services, the less likely they were to socialize. However, this could be confounded due to age. The most revealing statistic was found that the frequency of services received mattered most in determining social behaviors and depression risk. The more frequently the services were received, the Vietnamese were more social and less depressed. This shows the positive impact of SEAMAAC on the South East Asian community.

Based on the findings of the project, further interviews are needed to improve the power of the study and probe further into interesting trends. Outreach must be conducted toward elders who have been with SEAMAAC for at least three (3) years, but exhibit decreased social behaviors. It is important to understand the reasons behind their decreased socializing behaviors, such as the onset of disease being potentially hindering factors.

Another recommendation for future similar studies would be to investigate potential problems in translations, especially with non-fluent translators. Although the GDS and Lubben Scale were designed to be simple language with basic concepts of “yes” and “no,” different languages may have more difficulty than others in capturing the original spirit and subtle nuances of the English language.

## **Introduction**

The South East Asian Mutual Assistance Association (SEAMAAC) is a non-profit organization dedicated to serving immigrant and refugee populations in the Philadelphia area for the past 25 years. As the staff members worked with the South East Asians, they gained insight into their lives, and recognized how acculturation and language barriers caused isolation and depression in the South East Asian community. This isolation was present across all generations, including the elderly, young stay-at-home mothers, and their children. For elders, the acculturation was a particular cause for distress because they felt a loss of autonomy, authority, and respect that they were accustomed to in their native lands.

However, in America, language barriers and acculturated youth who did not seem to respect or care about traditions isolated the elders from social circles. Consequently, the isolation hinders the population in education about public insurance, food programs, school registration requirements, and health measures such as vaccinations. This leads to depression and unhealthy life behaviors in the Asian American and Asian immigrant population.

In response, SEAMAAC organized several social and translation services to benefit the elderly, collectively called the Roots of Happiness. The elderly were first targeted because of the emergent need in the 65 and older age bracket in the population. Research has projected that America's aging baby boomer population will contribute to the growth of this age bracket from 12.4% to 20% of the total U.S. population between 2010 and 2030 (Mui & Kang, 2006). In this age bracket, Asian American and Asian immigrant elderly populations are expected to easily outdistance others in growth rate with estimated 246% increases between 2000 and 2025 compared to 74% increases in the next highest growing group, white elderly who are mostly

indigenous (Mui & Kang, 2006). Because of this growing need, SEAMAAC used community based participatory research principles and applied it to the Roots of Happiness program to improve health access and statistics in the population of South East Asian elders in Philadelphia.

The Roots of Happiness is a multi-faceted approach to provide social services and health benefits to the elderly population of Philadelphia. SEAMAAC strives to provide these services in culturally competent fashion, and reduce isolation and depression in the community. Currently, SEAMAAC focuses the Roots of Happiness Program specifically toward Vietnamese and Laotian elders, but intends to expand to reach Cambodian and other South East Asian ethnicities as well. The program primarily consists of three components:

- Translator Services
- *Jook* (rice porridge) breakfast
- Elder's Council

Translator services are offered by bilingual SEAMAAC staff and outreach workers to facilitate the process to enroll the elders into social services such as Medicare and complete citizenship papers. Outreach workers will also accompany elders on doctor appointments to translate the medical information between the physicians and the patients. The *jook* breakfasts offered weekly encourage elders to socialize with other South East Asians, connecting them to each other and building relationships. The *jook* breakfasts also serve as an information dissemination site, and announcements made prior to the breakfast alert elders about various topics related to their health, such as the changing of Medicare plans or free health checkups sponsored by other local organizations.

The Elder's Council is a group of volunteers from the Vietnamese and Laotian communities who act as the voice to express community opinions, needs, and interests to the

SEAMAAC staff. The Council was designed to give elders autonomy that they may have lost since leaving their native lands. To extend this restoration of honor to other elders, the Council has worked with FACTS Charter schools in Philadelphia to have community elders hold presentations in local schools about Asian culture, whether it is in the form of learning a folk song or listening to cultural fairy tales.

The Elder's Council works to unite the community and share their stories with others in political and cultural contexts. The Elder's Council works to strengthen bonds between the SEAMAAC organization and the people they represent. Ancillary programs such as computer and English Language classes are also organized by the Elder's Council and use SEAMAAC resources.

### **Specific Aims**

This project aims to show the impact Roots of Happiness may have on the Vietnamese and Laotian communities in Philadelphia, particularly with focus on elderly depression and socializing habits. It is hypothesized that both increased usage of SEAMAAC services and length of time with SEAMAAC will be correlated with higher Lubben scores and lower GDS scores, indicating high socializing behaviors, and low risk of depression. Other aims of this project include creating a demographic profile of the elderly population within SEAMAAC with non-identifying factors such as literacy level, age, and length of stay in the United States, and utilizing the GDS-15 and Lubben Social Network Scale to screen the client base for depression, and refer them to care as needed.



## **Research Design**

### *Overview:*

Length of time with SEAMAAC and number of services received was compared to risk of depression in the community and level of socializing behavior using the Geriatric Depression Scale (GDS) and the Lubben Social Network Scale (LSNS). This resulted in a cross-sectional profile of the impact of Roots of Happiness on the community.

### *Subjects:*

Subjects were Vietnamese and Laotian elderly, aged 60 and older, involved with SEAMAAC services. Participants were not discriminated against length of time with SEAMAAC or gender. Approximately 50 individuals of each ethnicity were interviewed. The subjects were recruited from the SEAMAAC clientele base, and had the option to refuse the interviews, and were informed that no identifying factors would be used.

### *Data Collection:*

Data measuring depression and socialization through the GDS and LSNS was provided through University of Pennsylvania researchers who collaborated on the project. The information regarding the social habits and depression risk of the population was compared to several demographic factors, including age, language, education, and English proficiency. Other factors considered included the length of time spent with SEAMAAC, the number of services and frequency of services received through SEAMAAC. The interview questions regarding demographic factors of interest were combined with translated and back-translated versions of the GDS and LSNS. Translation and back-translation occurred through bilingual SEAMAAC staff to ensure cultural nuances were conveyed in a culturally competent manner. Sample interview packets can be seen in Appendices A (Laotian) and B (Vietnamese). The original

English versions of the LSNS and GDS are included in Appendices C and D respectively. The interviews occurred either face-to-face or over the phone between the client and SEAMAAC bilingual staff to accommodate literacy barriers that may occur in the population.

*Variable Tools and Measurement:*

The Geriatric Depression Scale (GDS) and Lubben Social Network Scale are highly validated tools to measure depressive symptoms in elderly populations. The GDS was specifically designed for the elderly population with short, concise, and clear statements paired with simple yes and no responses (Lai *et al.*, 2005). Studies have found benefit of this scale with Asian populations as well after translation (Lai *et al.*, 2005). The 30-question GDS form yields 84% sensitivity and 95% specificity rate for diagnosis of depression with a cut-off score of 5 for moderate risk of depression, and 10 for high risk of depression. The short-form of the GDS-15 was introduced to shorten length of time in administering the screening, and utilized the questions of the original form that indicated strongest incidence of depression. A score of 10 and above is indicative of severe depression. Validation studies have confirmed 92.7% sensitivity, 65.2% specificity, 82.6% positive predictive value, and 83.3% negative predictive value according to ICD-10 criteria (Lai *et al.*, 2005). Additionally, the GDS-15 was highly correlated with the original GDS-30 with a correlation coefficient of 0.89 (Lai *et al.*, 2005).

Similarly, the LSNS was developed specifically for older populations and has been successfully used in many diverse backgrounds and settings. Scores range from 0 to 90 for LSNS. Scores of less than 20 indicate limited social networks, and may be indicative of depression. Low scores have been correlated with health indicators such as mortality, all-cause hospitalization, and depression and other mental health problems.

After training, outreach workers recruit volunteers among the SEAMAAC clientele base above the age of 60, and conduct interviews. If the GDS score reaches 10 or higher, the outreach workers ask the clientele if they would like to be referred to free medical care provided by Hall Mercer Mental Health Program. Referrals to care will be anonymous, and will only be recorded as a total tally of clients referred to care.

## Results

### *Lubben and GDS Scores by Ethnicities*

**Crosstab**

			LubbenScore		Total
			<20	20+	
Lang	Vietnamese	Count	6	44	50
		% within Lang	12.0%	88.0%	100.0%
		% within LubbenScore	17.1%	75.9%	53.8%
	Laotian	Count	29	14	43
		% within Lang	67.4%	32.6%	100.0%
		% within LubbenScore	82.9%	24.1%	46.2%
Total	Count		35	58	93
	% within Lang		37.6%	62.4%	100.0%
	% within LubbenScore		100.0%	100.0%	100.0%

**Table 1. Lubben Score by Ethnicities**

**Crosstab**

			GDS		Total
			0-4	5-15	
Lang	Vietnamese	Count	32	18	50
		% within Lang	64.0%	36.0%	100.0%
		% within GDS	56.1%	50.0%	53.8%
	Laotian	Count	25	18	43
		% within Lang	58.1%	41.9%	100.0%
		% within GDS	43.9%	50.0%	46.2%
Total	Count		57	36	93
	% within Lang		61.3%	38.7%	100.0%
	% within GDS		100.0%	100.0%	100.0%

**Table 2. GDS Score by Ethnicities**

*Population Descriptive*

**Lang \* Gender Crosstabulation**

			Gender		Total
			Male	Female	
Lang	Vietnamese	Count	22	28	50
		% within Lang	44.0%	56.0%	100.0%
		% within Gender	44.9%	63.6%	53.8%
	Laotian	Count	27	16	43
		% within Lang	62.8%	37.2%	100.0%
		% within Gender	55.1%	36.4%	46.2%
Total	Count	49	44	93	
	% within Lang	52.7%	47.3%	100.0%	
	% within Gender	100.0%	100.0%	100.0%	

**Table 3. Descriptives of Population: Gender by Ethnicities**

**Language \* Age Crosstabulation**

			Age			Total
			60-69	70-79	80+	
Lang	Vietnamese	Count	27	19	4	50
		% within Lang	54.0%	38.0%	8.0%	100.0%
		% within AGECat2	48.2%	61.3%	66.7%	53.8%
	Laotian	Count	29	12	2	43
		% within Lang	67.4%	27.9%	4.7%	100.0%
		% within AGECat2	51.8%	38.7%	33.3%	46.2%
Total	Count	56	31	6	93	
	% within Lang	60.2%	33.3%	6.5%	100.0%	
	% within AGECat2	100.0%	100.0%	100.0%	100.0%	

**Table 4. Descriptives of Population: Age by Ethnicities**

*Analysis of Vietnamese Populations*

Crosstab					
			LubbenScore		Total
			<20	20+	
Age	60-69	Count	3	24	27
		% within AGECat2	11.1%	88.9%	100.0%
		% within LubbenScore	50.0%	54.5%	54.0%
	70-79	Count	2	17	19
		% within AGECat2	10.5%	89.5%	100.0%
		% within LubbenScore	33.3%	38.6%	38.0%
	80+	Count	1	3	4
		% within AGECat2	25.0%	75.0%	100.0%
		% within LubbenScore	16.7%	6.8%	8.0%
Total	Count		6	44	50
	% within AGECat2		12.0%	88.0%	100.0%
	% within LubbenScore		100.0%	100.0%	100.0%

**Table 5. Vietnamese Analysis: Lubben by Age, p=0.7**

**Crosstab**

			GDS		Total
			0-4	5-15	
Age	60-69	Count	19	8	27
		% within AGEcat2	70.4%	29.6%	100.0%
		% within GDS	59.4%	44.4%	54.0%
	70-79	Count	11	8	19
		% within AGEcat2	57.9%	42.1%	100.0%
		% within GDS	34.4%	44.4%	38.0%
	80+	Count	2	2	4
		% within AGEcat2	50.0%	50.0%	100.0%
		% within GDS	6.3%	11.1%	8.0%
Total	Count		32	18	50
	% within AGEcat2		64.0%	36.0%	100.0%
	% within GDS		100.0%	100.0%	100.0%

**Table 6. Vietnamese Analysis: GDS by Age,  $p=0.5$**

**Crosstab**

			GDS		Total
			0-4	5-15	
SEAhowlongCAT2	Less than 3 years	Count	30	15	45
		% within SEAhowlongCAT2	66.7%	33.3%	100.0%
		% within GDS	93.8%	83.3%	90.0%
	3 to less than 5 years	Count	1	3	4
		% within SEAhowlongCAT2	25.0%	75.0%	100.0%
		% within GDS	3.1%	16.7%	8.0%
	More than 5 years	Count	1	0	1
		% within SEAhowlongCAT2	100.0%	.0%	100.0%
		% within GDS	3.1%	.0%	2.0%
Total	Count	32	18	50	
	% within SEAhowlongCAT2	64.0%	36.0%	100.0%	
	% within GDS	100.0%	100.0%	100.0%	

**Table 7. Vietnamese Analysis: GDS by How Long Since Being with SEAMAAC, p=0.19**



**Crosstab**

			LubbenScore		Total
			<20	20+	
SEAhownlongCAT2	Less than 3 years	Count	3	42	45
		% within SEAhownlongCAT2	6.7%	93.3%	100.0%
		% within LubbenScore	50.0%	95.5%	90.0%
	3 to less than 5 years	Count	3	1	4
		% within SEAhownlongCAT2	75.0%	25.0%	100.0%
		% within LubbenScore	50.0%	2.3%	8.0%
	More than 5 years	Count	0	1	1
		% within SEAhownlongCAT2	.0%	100.0%	100.0%
		% within LubbenScore	.0%	2.3%	2.0%
Total	Count	6	44	50	
	% within SEAhownlongCAT2	12.0%	88.0%	100.0%	
	% within LubbenScore	100.0%	100.0%	100.0%	

**Table 8. Vietnamese Analysis: Lubben by How Long Since Being with SEAMAAC,  $p = <0.05$**

Crosstab					
			GDS		Total
			0-4	5-15	
TotalNumSEAServ	.00	Count	8	1	9
		% within TotalNumSEAServ	88.9%	11.1%	100.0%
		% within GDS	25.0%	5.6%	18.0%
	1.00	Count	6	9	15
		% within TotalNumSEAServ	40.0%	60.0%	100.0%
		% within GDS	18.8%	50.0%	30.0%
	2.00	Count	7	1	8
		% within TotalNumSEAServ	87.5%	12.5%	100.0%
		% within GDS	21.9%	5.6%	16.0%
	3.00	Count	1	2	3
		% within TotalNumSEAServ	33.3%	66.7%	100.0%
		% within GDS	3.1%	11.1%	6.0%
	4.00	Count	10	3	13
		% within TotalNumSEAServ	76.9%	23.1%	100.0%
		% within GDS	31.3%	16.7%	26.0%
	5.00	Count	0	2	2
		% within TotalNumSEAServ	.0%	100.0%	100.0%
		% within GDS	.0%	11.1%	4.0%
Total	Count		32	18	50
	% within TotalNumSEAServ		64.0%	36.0%	100.0%
	% within GDS		100.0%	100.0%	100.0%

**Table 9. Vietnamese Analysis: GDS by How many SEAMAAC services received,  $p = <0.05$**

Crosstab					
			LubbenScore		Total
			<20	20+	
TotalNumSEAServ	.00	Count	0	9	9
		% within TotalNumSEAServ	.0%	100.0%	100.0%
		% within LubbenScore	.0%	20.5%	18.0%
	1.00	Count	3	12	15
		% within TotalNumSEAServ	20.0%	80.0%	100.0%
		% within LubbenScore	50.0%	27.3%	30.0%
	2.00	Count	1	7	8
		% within TotalNumSEAServ	12.5%	87.5%	100.0%
		% within LubbenScore	16.7%	15.9%	16.0%
	3.00	Count	0	3	3
		% within TotalNumSEAServ	.0%	100.0%	100.0%
		% within LubbenScore	.0%	6.8%	6.0%
	4.00	Count	1	12	13
		% within TotalNumSEAServ	7.7%	92.3%	100.0%
		% within LubbenScore	16.7%	27.3%	26.0%
	5.00	Count	1	1	2
		% within TotalNumSEAServ	50.0%	50.0%	100.0%
		% within LubbenScore	16.7%	2.3%	4.0%
Total	Count	6	44	50	
	% within TotalNumSEAServ	12.0%	88.0%	100.0%	
	% within LubbenScore	100.0%	100.0%	100.0%	

Table 10. Vietnamese Analysis: Lubben by How many SEAMAAC services received, p= 0.36

**Crosstab**

			GDS		Total
			0-4	5-15	
SEAoften	Weekly	Count	16	8	24
		% within SEAoften	66.7%	33.3%	100.0%
		% within GDS	50.0%	44.4%	48.0%
	Monthly	Count	8	5	13
		% within SEAoften	61.5%	38.5%	100.0%
		% within GDS	25.0%	27.8%	26.0%
	Twice a Year	Count	1	3	4
		% within SEAoften	25.0%	75.0%	100.0%
		% within GDS	3.1%	16.7%	8.0%
	Once a Year or less	Count	7	2	9
		% within SEAoften	77.8%	22.2%	100.0%
		% within GDS	21.9%	11.1%	18.0%
Total	Count	32	18	50	
	% within SEAoften	64.0%	36.0%	100.0%	
	% within GDS	100.0%	100.0%	100.0%	

**Table 11. Vietnamese Analysis: GDS by How often SEAMAAC services received,  $p = 0.32$**

**Crosstab**

			LubbenScore		Total
			<20	20+	
SEAoften	Weekly	Count	2	22	24
		% within SEAoften	8.3%	91.7%	100.0%
		% within LubbenScore	33.3%	50.0%	48.0%
	Monthly	Count	2	11	13
		% within SEAoften	15.4%	84.6%	100.0%
		% within LubbenScore	33.3%	25.0%	26.0%
	Twice a Year	Count	1	3	4
		% within SEAoften	25.0%	75.0%	100.0%
		% within LubbenScore	16.7%	6.8%	8.0%
	Once a Year or less	Count	1	8	9
		% within SEAoften	11.1%	88.9%	100.0%
		% within LubbenScore	16.7%	18.2%	18.0%
Total	Count	6	44	50	
	% within SEAoften	12.0%	88.0%	100.0%	
	% within LubbenScore	100.0%	100.0%	100.0%	

**Table 12. Vietnamese Analysis: Lubben by How often SEAMAAC services received, p= 0.78**

Crosstab

			GDS		Total
			0-4	5-15	
Marital	Never Married	Count	0	1	1
		% within Marital	.0%	100.0%	100.0%
		% within GDS	.0%	5.6%	2.0%
	Married	Count	27	7	34
		% within Marital	79.4%	20.6%	100.0%
		% within GDS	84.4%	38.9%	68.0%
	Widowed	Count	5	9	14
		% within Marital	35.7%	64.3%	100.0%
		% within GDS	15.6%	50.0%	28.0%
	Divorced	Count	0	1	1
		% within Marital	.0%	100.0%	100.0%
		% within GDS	.0%	5.6%	2.0%
Total	Count		32	18	50
	% within Marital		64.0%	36.0%	100.0%
	% within GDS		100.0%	100.0%	100.0%

Table 13. Vietnamese Analysis: GDS by Marital Status,  $p < 0.05$

Crosstab

			LubbenScore		Total
			<20	20+	
Marital	Never Married	Count	0	1	1
		% within Marital	.0%	100.0%	100.0%
		% within LubbenScore	.0%	2.3%	2.0%
	Married	Count	2	32	34
		% within Marital	5.9%	94.1%	100.0%
		% within LubbenScore	33.3%	72.7%	68.0%
	Widowed	Count	3	11	14
		% within Marital	21.4%	78.6%	100.0%
		% within LubbenScore	50.0%	25.0%	28.0%
	Divorced	Count	1	0	1
		% within Marital	100.0%	.0%	100.0%
		% within LubbenScore	16.7%	.0%	2.0%
Total	Count	6	44	50	
	% within Marital	12.0%	88.0%	100.0%	
	% within LubbenScore	100.0%	100.0%	100.0%	

Table 14. Vietnamese Analysis: Lubben by Marital Status,  $p < 0.05$

## **Method**

Lubben scores were categorized into two sections: scores less than 21 and scores above 20. The reasoning for this was that the cutoff for Lubben was scores of 20 and below that were associated with depressive symptoms and negative health consequences. GDS scores were also categorized into two sections as well: 0-4, and 5+. The cutoff for moderate risk of depression is 5, and because no interviewees scored above a 10, indicating high risk of depression, the categories of 5-9, and 10-15 were combined.

The translation and back-translation for the Laotian survey was flawed because of several factors, including translation bias, interviewer bias, and interviewee bias. Surveys had to be re-translated and re-back-translated because the translators were not fluent in English, and the Laotian language often could not capture the original cultural nuances in English. For example, whereas English has words expressing different levels of happiness (content, satisfied, happy, joyful), these abstract concepts did not exist in Laotian. This resulted in poor translations, and in the re-translation process, sentence structure and clarifying words were used to help convey the meaning of the original questions. Interviewers may also have been biased in the process because they misunderstood the scoring process for the GDS, believing that a high score indicated “correct” answers, instead of risk of depression. Interviewees were thus subjected to a total of three interviews, and may have either remembered the questions, or were not as forthcoming in the subsequent interviews because of patient exhaustion.

## **Discussion and Conclusion**

It was difficult to draw many significant conclusions from this study because of low N's in many of the categories. In particular, only one score of 10+ was recorded for the GDS in the Vietnamese population, and no scores of 10 or above were recorded for the Laotians. Laotian



data was also omitted for much analysis because of possible interviewer and interviewee bias during data collection, and possibly confounded any potential results in the Vietnamese population, whose interview process had gone smoothly.

Tables 1 and 2 show the GDS and Lubben scores for the Vietnamese and Laotian populations. The table shows that the Vietnamese exhibited much more social connectedness compared to the Laotians, at a figure of 75.9% having a score of at least 20 in Vietnamese, and 24.1% in Laotian. The GDS scores in both Vietnamese and Laotians were generally low, indicating low risk of depression.

Tables 3 and 4 describe the population studied. There was a generally even distribution of males and females interviewed, despite seven (7) Laotian surveys invalidated because of incomplete information. However, relatively younger elders were interviewed more often than others. Specifically, the age 60-69 age category encompassed over 50% of all interviews in both ethnic groups.

The results following were specific to the Vietnamese population to reduce confounding by biased data in the Laotian community. Table 5 and 6 show the Lubben and GDS data compared to the age of the Vietnamese elders. Lubben data was not significant because most of the population was highly social, and few exhibited low social connectedness. However, GDS scores showed that the younger population was at less risk of depression. There was a trend of increasing risk of depression as age increased.

Tables 7 and 8 showed GDS and Lubben correlated to how long the elders received SEAMAAC services. However, most were with SEAMAAC for less than 3 years, and although a significant p value was found, no significant trends could be found. However, it could be construed that socializing decreased as time with SEAMAAC increased. This is not to conclude

that SEAMAAC tends to decrease socializing behaviors, but the onset of disease and other hindering factors are potential confounders. As the client ages, the onset of disease may make it more difficult to socialize or access SEAMAAC service, which promote socializing.

Tables 9 and 10 show how many SEAMAAC services are received by the Vietnamese, and correlated to the GDS and Lubben scores. Although a significant p was reached, not much information could be gathered as a trend because of small N's in some categories. However, it shows high utilizing of SEAMAAC services by the Vietnamese.

Tables 11 and 12 are more elucidating in terms of how frequently the SEAMAAC services are received and correlated to socializing and depression risk. Although significant p values were not found, there is a strong trend showing that the more frequently services are received, there is lower risk of depression and higher socializing behaviors. Tables 13 and 14 show the impact of marriage on depression. Married elders had generally lower GDS scores and higher socializing behaviors than single, divorced, separated, or never married individuals. For married Vietnamese elders, 94.1% had high socializing behavior compared to 78.5% in widowed. There were very few elders who were never married or divorced to make conclusive results.

Although many of the tables could not show statistical significance, some trends of interest were found. To further improve the power of this study, more interviews need to be conducted. Many factors of interest were omitted purely due to intense lack of clients in category. For example, only one person lived alone in Vietnamese category. Although he showed moderate to high risk of depression, it was not enough to make compelling arguments. Also, only two were employed out of the fifty (50) Vietnamese interviewees. Many of the results were also found to be inconclusive because only six (6) had low Lubben scores.

## **Recommendations**

Based on the findings of the project, further studies need to be made to improve power and to probe further into interesting trends. Outreach must be conducted toward elders who have been with SEAMAAC for at least three (3) years, but exhibit decreased social behaviors. Assessment as to the reasons for the decreased social behaviors, e.g. onset of disease physically limiting, is needed to effectively evaluate SEAMAAC.

Another recommendation for future similar studies would be to investigate potential problems in translations, especially with non-fluent translators. Although the GDS and Lubben Scale were designed to be simple language with basic concepts of “yes” and “no,” different languages may have more difficulty than others in capturing the original spirit and subtle nuances of the English language.

## References

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